Proposed Revision Request 1312 clarifies the expectation under existing CAISO tariff rules that all resources, including non-generator resources and eligible intermittent resources, follow a trajectory between dispatch operating targets (DOTs). The CAISO tariff requires resources to respond to dispatch instructions (CAISO tariff sections 4.2.1 and 34.13.1.) Among other requirements, the CAISO tariff states that if a dispatch instruction includes a timeframe, a resource will respond to a dispatch instruction within the stated timeframe. In addition, resources must not intentionally generate above or below its DOT. The CAISO expects that when it dispatches a resource the resource will follow its dispatch operating point (DOP) between DOTs. This expectation is consistent with how the CAISO’s settles instructed imbalance energy. Under the CAISO tariff, an eligible intermittent resource may produce to its capability when its DOT equals its forecasted output. (*See* CAISO Tariff Section 34.13.1.) The CAISO recognizes that during these intervals, an eligible intermittent resource may actually produce more or less energy than its forecasted output. However, during these intervals, its DOT remains its forecasted output.

**Response to SCE comments**

SCE asserts that the CAISO’s expectation that an eligible intermittent resource follow its DOP between DOTs is infeasible for several reasons. First, SCE asserts when an eligible intermittent resource is producing to its capability it is unlikely that its output will equal its forecasted output. Instead, its output will likely be either higher or lower than its forecasted output. As a result, an eligible intermittent resource may not have the ability to follow its DOP between DOTs in response to an operating instruction. The CAISO understands SCE’s concern and has revised the draft language to state that when an eligible intermittent resource is producing as capable, *i.e.,* when its DOT equates with its forecast) and receives an operating instruction to reduce its DOT the resource should still follow a trajectory between real-time dispatch intervals to reach its new DOT.

Second, SCE asserts that the CAISO has already instructed SCE to have resources follow immediate ramping across 5 minutes as the operating procedure for Real-Time Contingency Dispatch, which is the mode of the Real-Time Dispatch that the CAISO uses when a transmission or generation contingency occurs and allows the CAISO to include all contingency only operating reserves in the optimization. Real Time Contingency Dispatch uses the CAISO’s Security Constrained Economic Dispatch to produce an optimized set of binding Dispatch Instructions for one (1) or more ten-minute Dispatch Intervals instead of a normal five minute Dispatch Interval. The CAISO has not instructed SCE to have resources immediately ramp to dispatch levels during a Real-Time Contingency Dispatch. Instead, the CAISO tariff provides that resources must respond to RTCD Dispatch Instructions as soon as possible. (CAISO tariff section 34.5.2.1.) They need not reach their dispatch operating target as soon as possible. Consistent with tariff section 34.5.2.1, the CAISO expects resources to respond to a Real-Time Contingency Dispatch Instruction within 10 minutes.

Third, SCE argues some resources such as Qualifying Facilities and Run-of-River resources, among others, generate as fuel and host processes allow. SCE asserts it cannot control these resources and asks the CAISO to specify which resources would be exempt from this PRR. SCE also asks that the CAISO clarify the definition for “Non-Dispatchable Resource” in the BPM for Definitions and Acronyms. The CAISO expects all resources to respond to dispatch instructions. The CAISO expects that scheduling coordinators would self-schedule the resources SCE identifies. However, the CAISO also expects that these resources would follow any dispatch instructions issued consistent with those self-schedules. SCE should submit a proposed revision request if it believes there is a need to clarify the CAISO’s Business Practice manual for Definitions and Acronyms.

**Response to Northern California Power Agency Comments**

In its comments, NCPA request that CAISO rephrase the proposed language to clarify that only resources that are required to follow dispatch instructions must follow dispatch operating points. In addition, NCPA states an EIR cannot follow its DOP when it is not under Operating Instructions and is generating “as capable.” In addition, NCPA explains run of river resource types cannot follow dispatch instructions under any circumstance. NCPA explains it is registered as Load Following Metered Subsystem, and as such is required to follow its load with its own resource in five-minute increments or be subject to severe penalties. NCPA states that CAISO tariff section 34.14 explicitly exempts Load Following resources from following Dispatch Instructions due to the fact the capacity is reserved for addressing its own load variance: “Such MSS Load following resources can deviate from the Dispatch Instructions in Real Time to facilitate the following of Load.”

The CAISO has made changes to its BPM language to address concerns associated with Eligible Intermittent Resources when they are producing to their capability. For run of river resources, the CAISO expects that scheduling coordinators would self-schedule these resources. However, the CAISO also expects that these resources would follow any dispatch instructions issued consistent with those self-schedules. Under the CAISO tariff, Load Following Metered Subsystem Operators must provide the CAISO with an estimate of the number of MWs the applicable generating resource(s) will be generating over the next two hours in five-minute interval resolution. *See* tariff section 34.14. The CAISO incorporates dispatch instructions for Load following resources based on these estimates provided by MSS operators. However, MSS Load following resources can deviate from the dispatch instructions in real-time to facilitate the following of load. Nothing about the CAISO’s proposed BPM revisions changes this tariff language. The CAISO has added clarifying language to the proposed BPM changes.

**Response to Large-scale Solar Association Comments**

In its comments, LSA submits formatting suggestions and clarifying changes. The CAISO has attempted to incorporate these suggested changes as reflected in the language below.

LSA also comments that the CAISO needs to recognize that when an Eligible Intermittent Resource is producing to its capability below its forecasted output, that this output level is not in itself a DOT. As a result, an Eligible Intermittent Resource producing to its capability at an output level below its forecast may not have the ability to follow a trajectory to a DOT if there is insufficient fuel to do so.

The CAISO understands LSA’s concern and has revised the draft language to state that when an Eligible Intermittent Resource is producing as capable, *i.e.,* when its DOT equates with its forecast) and receives an Operating Instruction to reduce its DOT the resource should still follow a trajectory between Real-Time Dispatch Intervals to reach its new DOT.

**New language to section 7.2.3.6 of BPM for Market Operations [Additions underscored]**

The Dispatch Operating Point (DOP) is a piecewise linear curve defined by MW (on the Y axis) across time (on the X axis). The source data consists of the DOTs, which are published in the GOTO field in the ADS. The DOP is the expected trajectory of the resource operating point as it ramps from one DOT to the next; the ramping across Dispatch Intervals is linear, unless the operational ramp rate of the resource changes during the ramp.

As part of the requirement to respond to Dispatch Instructions, a resource should follow its DOP. This requirement applies to all resources, including:

• A Non-Generator Resource ramping from one DOT to the next;

• An Eligible Intermittent Resource, when sufficient fuel (solar irradiance or wind) permits:

* When ramping from producing to its capability, *i.e.* when its DOT is equal to its forecasted output, to a DOT below its forecasted output pursuant to a negative supplemental Dispatch Instruction.
* When ramping from producing to its capability, *i.e*. when its DOT is equal to its forecasted output, to a DOT at its forecasted value pursuant to an Operating Instruction not to exceed its DOT.
* When ramping from a DOT lower than its forecasted output to produce to its capability, *i.e.* when its DOT is equal to its forecasted output.
* When ramping to an output level below the DOT due to insufficient fuel (solar irradiance or wind).

When an Eligible Intermittent Resource is producing as capable, *i.e.* when its DOT is equal to its forecasted output, the Eligible Intermittent Resource may be producing at a value below or above its forecasted output. Nevertheless, when ramping to a new DOT below its forecasted output, the Eligible Intermittent Resource should still follow a trajectory between Real-Time Dispatch Intervals to reach its new DOT.

Since RTM dispatches resources based on their actual output as shown in the State Estimator solution or the telemetry, nearly vertical corrections to the DOP curve can occur at five-minute intervals when a previously issued DOT is corrected to the actual output. In the absence of Dispatch instructions, ADS extends the most recent DOP value available and plots a flat curve to the end of the next interval.

Notwithstanding the above, MSS Load following resources may deviate from the Dispatch Instructions in Real-Time to facilitate the following of Load.